

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today was not written for publication is not binding precedent of the Board.

Paper No. 11

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DONALD Z. ROGERS

Appeal No. 1997-1522
Application 08/296,779

ON BRIEF

Before DOWNEY, WILLIAM F. SMITH and METZ, Administrative Patent Judges.

DOWNEY, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the final rejection of claims 1-11 and 13, all the claims remaining in the application.

The subject matter on appeal relates to decorative articles in the form of gemstones and ornaments comprising a substrate and a certain multiple thin film interference coating

over substantially the entire surface of the substrate. Claim 1 illustrative of the invention and reads as follows:

1. An article of manufacture comprising a substantially transparent substrate of a size and shape suitable for use as a decorative object selected from the group consisting of gemstones and ornaments and a multilayer thin film interference coating over substantially the entire surface of said substrate, said coating consisting of alternating layers of substantially nonabsorbing materials with a relatively high refractive index and a relatively low refractive index with respect to each other, the thicknesses and identities of said layers being chosen so that the entire coating will preferentially reflect at least some of the incident light with wavelengths between 400 nanometers and 700 nanometers inclusive.

The references relied upon by the examiner are:

Mayer	3,539,379	Nov. 10, 1970
King	5,054,902	Oct. 8, 1991

Optics, Addison-Wesley Publishing Company Inc., copyright 1987, pp. 376-377.

The rejections before us are:

1. Claims 1, 3-11 and 13 stand rejected under 35 U.S.C. § 103 as unpatentable over King in view of Optics.
2. Claim 2 stands rejected under 35 U.S.C. § 103 as unpatentable over King in view of Optics as applied to claims 1, 3-11 and 13 above, and further in view of Mayer.

After careful consideration of the rejections before us, the above cited prior art, the arguments presented by appellants and the examiner, we reverse these rejections.

I.

The PTO has the burden, via the examiner, to establish a prima facie case of obviousness. In re Lowry, 32 F.3d 1579, 1584, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994); In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

Claim 1 is directed to an article comprising a substantially transparent substrate of the size and shape suitable for use as a gemstone or ornament and a multilayer thin film interference coating over substantially the entire surface of the substrate. The coating consists of alternating layers of substantially nonabsorbing materials with a relatively high refractive index and a relatively low refractive index with respect to each other and of thicknesses and identities chosen so that the entire coating will preferentially reflect at least some of the incident light with wavelengths between 400 nanometers and 700 nanometers.

King is directed to a article, e.g., a window, eyeglasses, or costume jewelry, comprising a transparent substrate and a semireflective metal layer coated over one side of the substrate and a thin dielectric layer over the semireflective layer. King does not teach the use of the claimed multilayer thin film interference coating nor the placement an interference coating over the entire surface of the substrate.

Optics discloses a multilayer interference coating having high and low refractive indexes on a glass substrate useful as antireflection coatings on optical instruments.

It is the examiner's position that the teachings of King and Optics would have rendered the claimed invention prima facie obvious. the examiner states:

[I]t would have been obvious to one of ordinary skill in the art to which this invention pertains to substitute the interference coating taught by Optics for the interference coating of King, because they represent art-recognized equivalents as they are both means of utilizing interference effects to modify the color of reflected light from clear substrates. (Answer, page 3)

The examiner has also taken the position that coating a portion of or the entire substrate is a matter of design choice. (Answer, page 6).

We reverse this rejection.

In order to properly combine references A and B to reach the conclusion that the subject matter of a patent [application] would have been obvious, case law requires that there must have been some teaching, suggestion or inference in either reference A or B, or both, or knowledge generally available to one of ordinary skill in the relevant art, which would have led one skilled in the art to combine the relevant teachings of A and B.

Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 297 n.24, 227 USPQ 657, 667, n.24 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir.

1984) and W.L. Gore & Assoc., Inc. v. Garlock, Inc., 721 F.2d 1540, 1551-53, 220 USPQ 303, 311-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

On this record, in our view the examiner has failed to sustain his burden. The examiner has pointed to the fact that King contains a dielectric layer to alter the reflective color of the substrate and to the fact that Optics describes multilayer optical interference films and has concluded that it would have been obvious to use the multilayer optical interference films in Optics for the interference coating of King. However, he has drawn this conclusion without pointing to any teaching or suggestion or inference in the cited prior art, or knowledge generally available in the relevant art, that would have motivated one of ordinary skill in the art to combine the references as suggested by the examiner to arrive at the claimed invention.

In having both the semireflective layer and single thin dielectric layer on a transparent support, King's invention provides a color enhancement effect by interference between light reflected from a semi-reflecting layer on the transparent substrate and light reflected from the outer surface of a dielectric layer which is hermetically sealed over the semi-reflecting layer. The color metallic appearance obtained by King is observable to the viewer on the side of the incident light. King does not suggest the use of a multilayer dielectric interference film to create the interference effect but rather the combination of the semireflective layer and single thin dielectric layer. The Optics reference provides a

broad discussion of reflectance values obtainable in optical interference films which employ varying number of high and low refractive index coatings. As can be seen from our view, King and Optics are directed to differing structures and functions. Where King creates an interference effect between a semireflective layer and a single thin dielectric layer, Optics creates an interference effect in optical instruments between multiple dielectric layers.

In the situation before us, the examiner has improperly pointed to isolated teachings in each of the applied references. The examiner's approach falls short of establishing the requisite evidence to establish that one of ordinary skill in the art would have found it obvious to combine the applied references to arrive at the claimed invention. Grain Processing Corp. v. American Maize-Prods. Co., 840 F.2d 902, 907, 5 USPQ2d 1788, 1792 (Fed. Cir. 1988). It is not appropriate to use appellant's disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings in the prior art. Id. UniRoyal, Inc. v Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988).

With respect to the claims requiring a multilayer interference film coating over substantially the entire substrate, the examiner has held that King has made an obvious design choice. However, King's structure achieves a different purpose than that of

appellants. See In re Gal, 980 F.2d 717, 719, 25 USPQ2d 1076, 1078

(Fed. Cir. 1992) (finding of “obvious design choice” is precluded where claimed structure and the function it performs are different from the prior art.)

In view of our reversal of this rejection, we do not find it necessary to discuss the separate rejection of dependent claim 2 over King in view of Optics and further in view of Mayer especially since Mayer, who teaches the application of an aluminum oxide layer on the surface of gem as a hard protective layer, does not overcome the deficiencies of King and Optics.

Reversed

MARY F. DOWNEY)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
WILLIAM F. SMITH)	
Administrative Patent Judge)	APPEALS AND
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